

ORIGINAL

Matilda Sanders

From: terry.scobie@verizon.com
Sent: Monday, April 03, 2006 2:32 PM
To: Filings@psc.state.fl.us
Cc: leigh.a.hyer@verizon.com; David Christian; demetria.c.watts@verizon.com; frank.app@verizon.com
Subject: Docket No. 060077-TL - Verizon Florida Inc.'s Pole Inspection and Reporting Plan
Attachments: 060077 VZ FL Pole Inspection Plan-4-3-06.pdf



060077 VZ FL
ole Inspection P.

The attached filing is submitted in Docket No. 060077-TL on behalf of Verizon Florida Inc. by

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The attached .pdf document contains 15 pages - transmittal letter (1 page), certificate of service (1 page), service list (1 page) and Pole Inspection and Reporting Plan (12 pages).

(See attached file: 060077 VZ FL Pole Inspection Plan-4-3-06.pdf)

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- CMP _____
- COM _____
- CTR _____
- ECR _____
- GCL _____
- OPC _____
- RCA _____
- SCR _____
- SGA _____
- SEC 1
- OTH _____

DOCUMENT NUMBER-DATE

02967 APR-3 06

FPSC-COMMISSION CLERK

ORIGINAL

verizon

David M. Christian
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April 3, 2006 – VIA ELECTRONIC MAIL

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Ms. Blanca S. Bayo, Director
Division of Commission Clerk
and Administrative Services
Florida Public Service Commission
2540 Shumard Oak Boulevard
Tallahassee, FL 32399-0850

Re: Docket No. 060077-TL – Pole Inspection Plan

Dear Ms. Bayo:

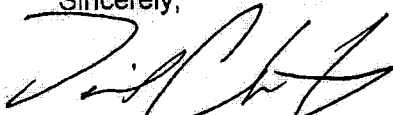
Pursuant to Order No. PSC-06-0168-PAA-TL, Verizon Florida Inc. (Verizon) hereby submits its comprehensive wood pole inspection plan to the Division of Competitive Markets and Enforcement. Verizon's plan requires targeted pole inspections based on reasonable criteria to identify "at risk" poles and adopts enhanced record keeping and reporting requirements. Verizon believes that, given the flexibility afforded by the Commission in the ordering paragraphs of the PAA Order, this plan meets the objectives identified in Order No. PSC-06-0168-PAA-TL and should be approved.

Specifically, Verizon will inspect poles that meet the Priority 1 selection criteria identified in the plan over an 8-year cycle and will collect data necessary for reporting and follow-up. Priority 2 poles are primarily used to carry low voltage telephone cables and equipment and will not be placed into the 8-year inspection program. Verizon's existing practices and procedures conducted in the normal course of business will still apply.

Verizon will implement its Priority 1 pole inspection program based on logical geographical areas such as wire center boundaries and other parameters as appropriate. This geographical approach will concentrate resources in one sector at a time so that a systematic and thorough evaluation is conducted in each area.

If you require additional information, please do not hesitate to contact me.

Sincerely,



David M. Christian
Vice President
Regulatory Affairs Florida

Attachments

DOCUMENT NUMBER-DATE

02967 APR-3 06

FPSC-COMMISSION CLERK

CERTIFICATE OF SERVICE

I hereby certify that copies of Verizon Florida Inc.'s Pole Inspection and Reporting Plan in Docket No. 060077-TL were sent via U.S. mail on April 3, 2006 to the parties on the attached list.

s/ David Christian

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**INSPECTION AND REPORTING PLAN
WOOD UTILITY POLES**

VERIZON FLORIDA INC.
April 3, 2006

**Docket No 060077-TL
Order No. PSC-06-0168-PAA-TL**

INSPECTION AND REPORTING PLAN WOOD UTILITY POLES

VERIZON FLORIDA INC.

1.0 INSPECTION METHODOLOGY

1.1 GENERAL APPROACH

Verizon Florida Inc. (Verizon) has approximately 107,205¹ wood utility poles in its serving territory. Verizon will inspect poles that meet the selection criteria over an 8-year cycle and will collect data necessary for reporting and follow-up. Verizon will inspect poles that do not meet the selection criteria using its existing practices and procedures in the normal course of business.

Verizon will implement its pole inspection program based on logical geographical areas such as wire center boundaries and other parameters as appropriate. This geographical approach will concentrate resources in one sector at a time so that a systematic and thorough evaluation is conducted in each area.

Verizon will document its inspection schedule for the year and will track any variance from the plan and the reasons for the variance.

Verizon will adjust its inspection program as needed if it determines, based on experience, that a different approach may be more effective. This may include inspecting poles based on geography other than wire center boundaries, coastal exposure, known soil conditions, age of poles, height of poles, class of poles, manufacturer, concentration of poles, wood type, or other factors.

1.2 POLE INSPECTION SELECTION CRITERIA

Verizon will place poles in the following categories for inspection purposes:

¹ Pole count as of 3/30/06.

Priority 1 Poles – Verizon-owned, joint use poles with electric power attachments.

All Verizon-owned poles carrying electric power will be inspected within an 8-year cycle. Verizon has approximately 30,000 joint use poles, representing 28% of its total pole inventory.

Priority 2 Poles – Verizon-owned poles without electric power attachments.

Priority 2 poles are primarily used to carry low voltage telephone cables and equipment and will not be placed into the 8-year inspection program. Verizon's existing practices and procedures conducted in the normal course of business will still apply.

Priority 2 poles serve a much different purpose than, and do not pose the same level of danger as, poles that carry power lines and transformers. Experience has shown that Priority 2 poles damaged during a storm do not fall to the ground causing unsafe conditions or service outages, but are instead supported in place by telephone cabling/guys or similar equipment until repaired. In addition, Verizon routinely uses Class 5 poles² for its telephone plant, even though Class 5 poles are larger than required and are capable of carrying greater loads than the facilities Verizon actually attaches. Eighty percent of Verizon's poles are under 35 feet in height and are typically used as telephone cable drop poles.

Most of the National Electric Safety Code (NESC) rules regarding pole strength and loadings (e.g., Section 25 and Section 26), including rules regarding pole deterioration, by rule apply only to Grades B or C construction. These grades are defined in Section 24 of the NESC, and they exclude most poles that carry only telephone plant, or joint telephone/electric usage poles with low voltages (< 750V). Since the majority of Verizon-owned poles do not have power attachments at all, they are subject to the NESC Grade N strength requirements, which do not specify strength or load factors or limits on deterioration.

Priority 3 Poles – New Poles

Poles will be placed into the 8-year inspection program when they reach 10 years of age. Verizon has approximately 10,000 poles, or slightly less than 10% of its inventory, that are less than 10 years old. In addition to following its existing practice of identifying the year when poles are placed in inventory in the property database, Verizon will put an inspection tag on new poles showing the year placed to identify those poles in the field.

² A Class 5 Pole has a breaking Load of 1900 lbs 2' from the top of the pole. It is available up to 70' in length, and would weigh 2400 lbs at that maximum length. Verizon typically uses Class 5 poles 30 and 35 feet in length.

1.3 COORDINATION OF INSPECTION EFFORTS FOR PRIORITY 1 POLES

Verizon currently has joint use pole agreements with seven power companies in Florida. These agreements will be reviewed and modified, as necessary, to reflect any changes in procedures. Verizon's plan will include the following guidelines with regard to joint use facilities:

Inspections: During inspections of Verizon-owned joint use poles where power company attachments exist (Priority 1), Verizon will calculate the loadings to determine if any action is required. Poles found not to be in compliance with NESC standards due to Verizon attachments will be corrected by Verizon within 90 days. If action is required for compliance with NESC standards due to another company's attachment loadings, that company will be responsible for correcting the deficiency within 90 days. Replacement of poles due to strength deficiencies will be the responsibility of the pole owner. If, however, the load failure is caused by another company's attachments, that company will bear the cost of pole replacement.

Attachments: A company placing attachments to existing poles³ will be responsible for performing loadings calculations and providing that information to the pole owner. If any action (including but not limited to pole replacement) is necessary as a result of such attachments, that action will be the responsibility of the attaching company. Verizon will review joint-use pole agreements and modify them as required to address pole inspections, attachments, and load calculations.

Inter-company Communications: Verizon will establish protocols for communication with the respective joint use administrator for each power and CATV company. Every effort will be made to communicate pole transfers and pole loading issues using the National Joint Use Notification System (NJUNS). However, when a company that does not participate in NJUNS attaches facilities to a pole, the joint use administrator will coordinate the attachment using established processes (i.e., email, telephone, fax), as appropriate. Verizon will keep a log indicating when a request is made, the date and time it is referred, to whom it is referred, the reason for referral, and when the request is complete.

³ A start date or demarcation date will be determined.

2.0 INSPECTION PROCEDURES

Verizon field inspectors will perform the following inspection tasks:

- (1) Review pole records for each area to be inspected
- (2) Perform a visual inspection on selected poles that meet the inspection criteria and identify attachments
- (3) Perform the Sound/Prod test to determine if further testing is required
- (4) Perform a Resistograph drilling, if needed, on poles with electric power⁴
(See Attachment A for inspection guidelines)
- (5) Record results in a pole inspection database
- (6) Tag pole with inspection tag indicating year inspected (Attachment B)
- (7) Report defective poles to OSP Engineering for replacement using standard procedures

3.0 POLE STRENGTH AND LOADING EVALUATIONS

3.1 PHYSICAL STRENGTH EVALUATION

Verizon will use the Resistograph instrument on selected poles that meet the inspection criteria and is currently investigating use of D-Calc™ pole damage assessment software from EDM International, Inc., which will calculate the percent of remaining strength.

3.2 LOADING EVALUATION

Verizon will use O-Calc™, a program specifically developed to accurately assess loads on existing and new pole structures.

O-Calc™ was specifically developed to aid companies in their efforts to accurately assess transverse and vertical loads on existing poles. Included among the graphic outputs are:

- Individual component load as well as total load
- Loads as a percent of pole capacity
- Indications of overload or reserve capacity
- Indication of stress along the length of the pole

Once O-Calc™ has analyzed the existing load on a pole, it is easy to evaluate the impact of adding cables or increasing the size of conductors.

⁴ Verizon will use the Resistograph instrument, which uses a drilling needle 1.5 to 3 mm in diameter that backfills the hole, in lieu of invasive boring and excavation techniques.

4.0 DATA COLLECTION AND REPORTING

4.1 DOCUMENTATION FOR EACH POLE

Verizon's pole inspection process will document certain key items for each inspected pole such as:⁵

- (1) Type of inspection performed
- (2) Type of pole inspected (class, material, year placed)
- (3) Number and type of attachments on pole⁶
- (4) Bonding and grounding inspected where applicable
- (5) Pole overloading conditions⁷
- (6) Remaining strength of pole⁸
- (7) Pass/Fail
- (8) Reason for pole failure and/or replacement
- (9) Record of recommendation and corrective action taken

Data will be captured in the appropriate field and recorded (an example is provided in Attachment C). The information will be uploaded into a database specifically designed for this purpose, together with Resistograph readings if taken.

4.2 ANNUAL REPORTING TO FLPSC

Verizon will submit an annual report of pole inspections to the Florida Public Service Commission, Division of Competitive Markets and Enforcement by March 1 of each year. The report will contain the following information:

- (1) A review of the methods Verizon used to determine NESC compliance for strength and structural integrity of the wood poles included in the report, taking into account pole loadings where required;
- (2) An explanation of the selection criteria for poles subject to inspection, including, among other things, geographic location and the rationale for including each selection criterion;
- (3) Summary data and results of Verizon's pole inspections addressing the strength, structural integrity, and loading requirements of the NESC. Summary data will include⁹:

⁵ This list may be revised as experience deems necessary.

⁶ Anchoring and guying inspected where applicable.

⁷ Loading estimates using O-Calc™ apply to Priority 1 poles.

⁸ Verizon is currently evaluating a method for estimating remaining pole strength for Priority 1 poles.

⁹ This list may be revised as Verizon's experience deems necessary.

- Type of inspection.
- Type of pole (class, material, vintage, installed population).
- Number of inspections planned and completed, including the reason for any deviation from the plan. Justification may address backlog issues and plans to address any backlog, as necessary.
- Number of inspected poles addressing a prior backlog.
- Number of poles failing inspection.
- Number of poles requiring minor follow-up.
- Number of poles requiring a change in inspection cycle.
- Number of poles that required no change in inspection cycle or remediation.
- Number of poles that were overloaded.
- Number of poles replaced.
- Number of poles with estimated remaining pole life of less than 8 years.

(4) For poles failing inspection, the cause(s) of each pole failure, to the extent that such cause(s) can be discerned in the inspection, and the specific actions the company has taken or will take to correct each pole failure.

ATTACHMENT A

POLE TESTING PROCEDURES WITH RESISTOGRAPH GUIDELINES

Determine pole(s) to be inspected with the Resistograph. Perform a visual, sounding, and prod inspection and if necessary, the Resistograph test. Follow procedures for tagging defective poles.

1.0 INSPECTION PROCEDURES

1.1 VISUAL INSPECTION

1.1.1 Perform visual inspection. Refer to document number **2004-00453-OSP**.

<http://consos.verizon.com/mas/reference/2004-00453-OSP.pdf>

1.1.2 Before working on any pole or testing it for safe conditions, review the following documents and make a visual check for the conditions identified:

- **Document number 2001-00514-OSP for Chemical Cautions and Inspection Tag related information.**

<http://i.verizon.com/engplng/PublishedDocuments/Flash/0100514.pdf>

- **Document number 2002-00923-OSP for Pole Treatment Precautions**

<http://i.verizon.com/engplng/PublishedDocuments/Flash/0200923.pdf>

1.2 SOUNDING TEST

The Sounding test consists of applying blows with a hammer, such as a drilling hammer, or the back of a hand axe, to the pole surface completely around the pole from points close to the ground-line to as high as can conveniently be reached. The presence of a hollow heart condition or advanced internal decay can usually be recognized by the characteristic hollow or dull sound resulting from the blows on the wood. A pole free from decay usually sounds clear and the hammer usually rebounds noticeably when the pole is struck sharply and squarely. Wet surfaces due to recent rains, wet interior near the ground-line due to high soil moisture, wide checks, or shakes in the pole near the surface may change the sound of a solid pole. Care must be taken not to mistake the altered sound due to these causes for the sound associated with internal decay.

1.3 PROD TEST

Prod the pole as near the ground line as possible using a pole prod or a screwdriver with a blade at least 5 inches long. Prod as close to the ground-line as practicable at an angle of approximately 45 degrees around the pole. If substantial decay is encountered, the pole shall be considered unsafe. The presence of general sapwood decay or decay pockets will usually be evident from this test.

1.4 RESISTOGRAPH TEST

The Resistograph decay detection instrument should be set against the utility pole with the use of the 45 degree adapter attachment to perform the first drilling. If the first graph profile is misleading or does not show enough information a second drilling needs to be performed under a 45 degree angle and one drilling 90 degrees (straight across at ground level).

2.0 TAGGING POLES

2.1 BUSINESS-AS-USUAL PROCEDURES

Poles found by the previously described tests to be unsafe shall be marked immediately with a B or C Pole Tag by the technician / craftsperson. The unsafe condition will be reported promptly to a supervisor or Engineer.

If the pole has been broken, resulting in an unsafe condition and requiring immediate attention, steps shall be taken to warn passers-by or traffic away from the location until a safe condition can be restored.

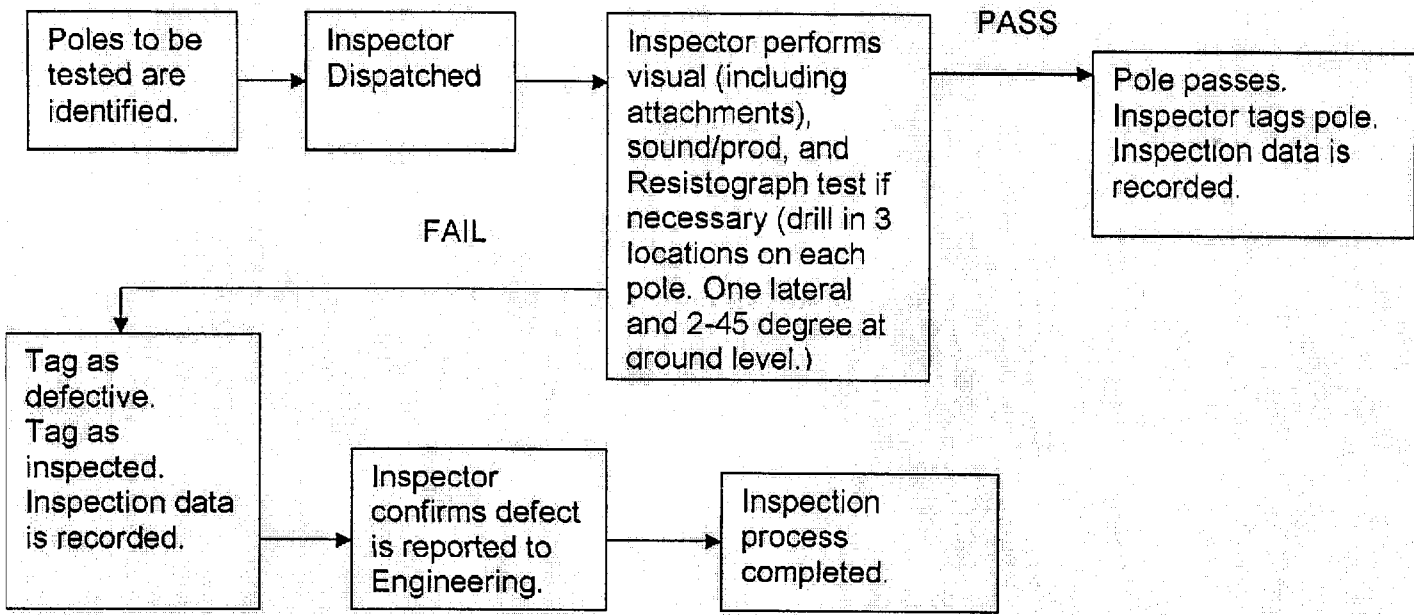
The B Pole Tag has a white arrow on a red background. It is intended for marking defective poles which do not require immediate replacement, that is, defective poles which are not yet considered dangerous.

The C Pole Tag is similar to the B Pole Tag except that an "X" inscribed in a circle is imposed on the shaft of the arrow. This tag is intended for marking poles which are in a dangerous condition and require immediate replacement.

2.2 INSPECTION PROGRAM

A new Verizon inspection tag has been developed for poles that are part of this inspection program. A tag will be placed on each pole inspected clearly showing the year of inspection. Attachment B shows the new tag.

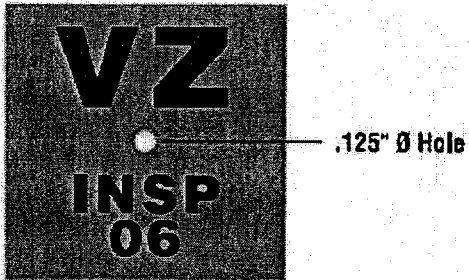
3.0 INSPECTION PROCESS FLOW CHART



ATTACHMENT B

INSPECTION TAG

Material: Aluminum
Size: 1.5" x 1.5" x .025
Color: Black on Orange



ATTACHMENT C

DATA COLLECTION – SAMPLE EXCEL SPREADSHEET¹⁰



POLE INSPECTION SHEET

INSPECTION DATE:	
WIRE CENTER:	
POLE NUMBER:	
IPID NUMBER:	
GPS LAT	
GPS LONG	

P-PAGE:	
YEAR:	
HEIGHT:	
CLASS:	

PHYSICAL ADDRESS: _____

ATTACHMENT INFO

UTILITY	COMPANY	TYPE OF ATTACHMENT	DOWNGUY		DEAD END		COMMENTS
			Y	N	Y	N	
TELEPHONE	VERIZON						
POWER							
CATV 1							
CATV 2							
OTHER							

INSPECTION RESULTS

RECOMMENDATION: _____

REPLACEMENT TIMELINE (IF REQUIRED)

FUNCTION	ECD
TO ENGINEERING	
WC TO FIELD	
PLACE NEW POLE	
TRANSFER FACILITIES	
REMOVE OLD POLE	
CLOSE WORK ORDER	

¹⁰ Data collection requirements are under review and this draft spreadsheet is subject to revision.